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ONTARIO

18th ANNUAL CONFERENCE
OF THE
PROVINCIAL MINISTERS
OF MINES



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P R O C E E D I N G S

EIGHTEENTH ANNUAL CONFERENCE
of the
PROVINCIAL MINISTERS OF MINES

SEPTEMBER 17 - 20, 1961

ROYAL YORK HOTEL

TORONTO, ONTARIO

THE HON. JAMES A. MALONEY, Q.C.
MINISTER OF MINES, PROVINCE OF ONTARIO
Chairman of the Conference

.....

D. P. DOUGLASS - DEPUTY MINISTER
Deputy Chairman and Co-Ordinator

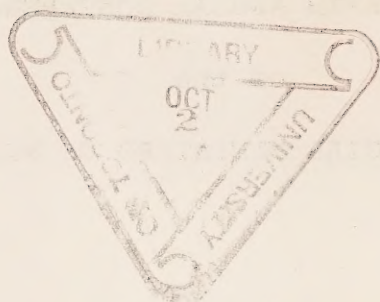


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TO: The Right Honourable John G. Diefenbaker,
Prime Minister of Canada

The Honourable Walter Dinsdale,
Acting Minister of Mines and Technical Surveys

The Honourable George C. Nowlan,
Minister of National Revenue

- and -

The Honourable Members of the Federal Cabinet

Dates and Places
of the
Annual Conferences
of the
Provincial Ministers of Mines

| <u>CONFERENCE</u> | <u>DATE</u> | <u>PLACE</u> |
|-------------------|-----------------------|-----------------------------|
| First | April 14-16, 1945 | Quebec, P.Q. |
| Second | November 22-23, 1945 | Toronto, Ontario |
| Third | September 23-27, 1946 | Winnipeg, Manitoba |
| Fourth | September 3-5, 1947 | Keltic Lodge, Nova Scotia |
| Fifth | September 2-4, 1948 | Jasper, Alberta |
| Sixth | September 7-10, 1949 | Fredericton, New Brunswick |
| Seventh | September 13-16, 1950 | Victoria, British Columbia |
| Eighth | September 5-8, 1951 | Saskatoon, Saskatchewan |
| Ninth | September 15-17, 1952 | Quebec, P.Q. |
| Tenth | September 16-18, 1953 | Niagara Falls, Ontario |
| Eleventh | September 20-22, 1954 | Winnipeg, Manitoba |
| Twelfth | September 12-14, 1955 | Keltic Lodge, Nova Scotia |
| Thirteenth | September 10-12, 1956 | Lake Louise, Alberta |
| Fourteenth | September 4-6, 1957 | Vancouver, British Columbia |
| Fifteenth | September 3-5, 1958 | St. Andrews, New Brunswick |
| Sixteenth | September 14-16, 1959 | Regina, Saskatchewan |
| Seventeenth | October 16-19, 1960 | Quebec, P.Q. |
| Eighteenth | September 17-20, 1961 | Toronto, Ontario |

PROVINCIAL MINISTERS OF MINES AND DEPUTY MINISTERS AT THE
TIME OF THE EIGHTEENTH ANNUAL CONFERENCE OF MINISTERS OF MINES

MINISTERS

| | |
|------------------------------|---|
| Honourable W. J. Keough | Minister of Mines and Resources, Newfoundland. |
| Honourable E. A. Manson | Minister of Mines, Nova Scotia. |
| Honourable H. Graham Crocker | Minister of Lands and Mines, New Brunswick. |
| Honourable René Lévesque | Minister of Natural Resources, Quebec. |
| Honourable James A. Maloney | Minister of Mines, Ontario. |
| Honourable C. H. Witney | Minister of Mines and Natural Resources, Manitoba. |
| Honourable J. H. Brockelbank | Minister of Mineral Resources, Saskatchewan. |
| Honourable Ernest C. Manning | Minister of Mines and Minerals, Alberta. |
| Honourable W. K. Kiernan | Minister of Mines and Petroleum Resources, British Columbia. |

DEPUTY MINISTERS

| | |
|----------------------|------------------|
| Mr. F. Gover | Newfoundland |
| Dr. J. P. Nowlan | Nova Scotia |
| Mr. K. Brown | New Brunswick |
| Dr. P. E. Auger | Quebec |
| Mr. D. P. Douglass | Ontario |
| Mr. J. G. Cowan | Manitoba |
| Mr. J. T. Cawley | Saskatchewan |
| Mr. H. H. Somerville | Alberta |
| Mr. P. J. Mulcahy | British Columbia |

CONFERENCE ORGANIZING COMMITTEE

C h a i r m a n

Honourable James A. Maloney, Q.C.
Minister of Mines

Deputy Chairman and Co-Ordinator

D. P. Douglass
Deputy Minister of Mines

Secretary

Miss J. K. Livingston

Sub-Committees

| | |
|--|--|
| Technical Programme | M. E. Hurst W. E. Bawden |
| Hotel and Entertainment | G. T. Stevens T. A. Gilmour |
| Registration and Secretarial Assistance | B. C. Lee Miss J. K. Livingston |
| Press and Public Relations | L. C. Brown |
| Printing and Proceedings | T. A. Gilmour |
| Ladies Liaison | Miss J. K. Livingston |
| Ladies Committee | Mrs. James A. Maloney Mrs. D. P. Douglass Mrs. H. C. Rickaby |

P R O G R A M M E

Sunday, September 17, 1961

| | |
|--------------------------|---------------------------------------|
| 2:30 p.m. to 6:00 p.m. | Registration |
| 8:00 p.m. to 10:00 p.m. | |
| 10:00 a.m. to 12:00 noon | Advance Meetings of Continuing |
| 2:30 p.m. and 8:00 p.m. | Committees |
| | No. 4 - Coal |
| | No. 5 - Petroleum and Natural Gas |
| | No. 5A- Sub-Committee " " |
| 8:30 p.m. to 10:30 p.m. | Coffee Party: Delegates and ladies |

Monday, September 18, 1961

| | |
|--------------------------|---|
| 9:00 a.m. to 12:30 p.m. | Registration |
| 9:00 a.m. to 10:30 a.m. | Meeting of Ministers and Deputy Ministers |
| 10:30 a.m. to 11:30 a.m. | Opening Plenary Session |
| 10:30 a.m. to 11:00 a.m. | Chairman's Opening Remarks |
| 11:00 a.m. | Guest Speaker: Mr. V. C. Wansbrough - "Current Prospects and Problems" |
| 2:30 p.m. to 5:00 p.m. | Committee Meetings |
| | No. 1 - Mining Operations |
| | No. 2 - Geology, Geophysics and Prospecting |
| | No. 3 - Royalties, Taxation and Tariffs |
| | No. 4 - Coal |
| | No. 5 - Petroleum and Natural Gas |
| | No. 6 - Education |
| 9:00 p.m. to 11:30 p.m. | Old Fashioned Square Dance: Compliments of the Ontario Mining Association |
| 11:30 p.m. | Refreshments |

Tuesday, September 19, 1961

| | |
|-------------------------|---|
| 9:00 a.m. to 12:00 noon | Committee Meetings |
| 2:30 p.m. to 5:00 p.m. | |
| 2:30 p.m. to 5:00 p.m. | Meeting of Ministers and Deputy Ministers |
| 11:00 a.m. to 2:30 p.m. | Ladies Excursion and Luncheon: Compliments of the Ontario Department of Mines |
| 6:30 p.m. to 7:15 p.m. | Reception: Compliments of the Ontario Mining Association |
| 7:30 p.m. | Conference Dinner: Tendered by the Honourable James A. Maloney, Q.C. on behalf of the Ontario Department of Mines |
| | Floor Show - to follow dinner |
| 10:30 p.m. | Meeting of Ministers and Deputy Ministers |

Wednesday, September 20, 1961

| | |
|--------------------------|--|
| 9:00 a.m. to 10:30 a.m. | Meeting of Ministers and Deputy Ministers |
| 10:30 a.m. to 12:00 noon | Closing Plenary Session |

C O M M I T T E E S

Committee No. 1 - Problems Relating to Mining Operations

Co-Chairmen: Dr. P. E. Auger,
Deputy Minister,
Department of Natural Resources,
Quebec.

Mr. F. Gover,
Deputy Minister of Mines,
Department of Mines and Resources,
Newfoundland.

Agenda:

- (a) Use of ammonium nitrate as a blasting agent underground.
- (b) Report of the sub-committee on silicosis.

Committee No. 2 - Problems Relating to Geology, Geophysics
and Prospecting

Chairman: Mr. P. J. Mulcahy,
Deputy Minister,
Department of Mines and Petroleum
Resources,
British Columbia.

Agenda:

- (a) Discussion of New Provincial legislation affecting prospecting.
- (b) Clarification of Provincial and Federal responsibilities in respect to mineral exploration and development on lands held by various Federal agencies or corporations, national parks, etc.
- (c) Conditions for permission to travel on road built for special purposes - e.g., lumbering, mining, power development.
- (d) Discussion of ways and means of implementing the collection of geophysical and geological information.

- (e) Investigate the possibility of uniformity in compilation of geophysical and geological information.
- (f) Discussion on prospecting and mining on Federal lands within Provincial boundaries having regard to inspection and jurisdiction questions involved.

Committee No. 3 - Royalties, Taxation and Tariffs

Chairman: Mr. J. T. Cawley,
Deputy Minister,
Department of Mineral Resources,
Saskatchewan.

Agenda:

- (a) Possibility of obtaining uniformity in compilation of mineral statistics.
- (b) Definition of mines under the Federal income tax and regulations for customs and income tax purposes; with special reference to layered and bedded deposits.
- (c) Limitation placed on the amount of royalty tax paid to a province that can be claimed by a mine as an expense for income tax purposes.
- (d) What action can be taken by the Provinces, individually or jointly, to encourage a progressively higher level of processing, refining and manufacturing of our mineral products within Canada? Do we, as a nation, have any defined policy directed to this objective?
- (e) Uniformity of legislation and practice in determining the amount of profit to which the tax rates of the several provinces are applied in order to determine the royalty payable by each mine, exclusive of natural gas and oil wells.

Committee No. 4 - Coal

Chairman: Dr. J. P. Nowlan,
Deputy Minister,
Department of Mines,
Nova Scotia.

Agenda:

- (a) Consideration of the necessity of granting subvention assistance to Canadian Coal to permit it to compete on an equal basis with imported Fuels in Canadian Markets.
- (b) Consideration of the provision of such subvention assistance as will ensure the continuance of the export of coal from Western Canada to Japan.

Committee No. 5 - Petroleum and Natural Gas

Co-Chairmen: Mr. J. G. Cowan,
Deputy Minister,
Department of Mineral Resources,
Manitoba.

Mr. H. H. Somerville,
Deputy Minister,
Department of Mines and Minerals,
Alberta.

Agenda:

- (a) Consideration of Sub-Committee reports:
 - (1) Lands Sub-Committee:
 - (i) The Model Oil and Gas Unit Agreement.
 - (ii) The Model Underground Gas Storage Act.
 - (iii) Future Projects.
 - (2) Technical Sub-Committee:
 - (i) Reports of Sub-Committees:
 - Reserves
 - Regulatory Practices
 - Conservation
 - Statistical
 - Legal
 - Uniform Nomenclature Petroleum Products

- (ii) The Model Oil and Gas Unit Operating Agreement.
- (iii) Future Projects.
- (b) A Brief by the Canadian Gas Association re standardization of natural gas pressure base.
- (c) "Economics of Oil and Gas Development in Northern Canada" - Mr. A. D. Hunt, Administrator of Oil and Gas, Department of Northern Affairs and National Resources.
- (d) "Market Forecast for Gas Consumption within Canada" - Mr. O. L. Jones, President, Canadian Gas Association.
- (e) Other Reports and new business.

Committee No. 6 - Education

Chairman: Mr. K. B. Brown,
Deputy Minister,
Department of Lands and Mines,
New Brunswick.

Agenda:

- (a) Progress report on the educational film for the mining industry.
- (b) That a catalogue of available films and literature be established by the Governments for general distribution.
- (c) That the status of the five pamphlets (dealing with metallurgy, geology, mining engineering, mineral dressing, industrial engineering) be reviewed by the Committee.
- (d) Other reports and new business.

LIST OF DELEGATES REGISTERED AT THE MINES MINISTERS CONFERENCE

B R I T I S H C O L U M B I A

| | |
|----------------------|---|
| Mulcahy, P. J. | Deputy Minister of Mines and Petroleum Resources, Victoria |
| Brett, Floyd | Sinclair Canada Oil Co., Calgary, Alta. |
| Ewart, T. G. | Crow's Nest Pass Coal Co. Ltd., Fernie |
| Hurdle, B. E. | Consolidated Mining and Smelting Co., Trail |
| Ion, D. C. | British Petroleum Exploration (Canada) Ltd., Calgary, Alta. |
| Joynt, K. R. | Mobil Oil of Canada Ltd., Calgary, Alta. |
| McGillivray, G. B. | Canadian Petroleum Assoc., Victoria |
| McLeod, R. R. | Dept. of Mines and Petroleum Resources, Victoria |
| Mackenzie, T. A. | Dept. of Mines and Petroleum Resources, Victoria |
| Mitchell, C. H. | Mining Assoc. of British Columbia, Vancouver |
| Peck, J. W. | Dept. of Mines and Petroleum Resources, Victoria |
| Poyen, J. S. | Imperial Oil Ltd., Calgary, Alta. |
| Sargent, Dr. H. | Dept. of Mines and Petroleum Resources, Victoria |
| Scott, E. W. | Union Oil Co. of California, Calgary, Alta. |
| Van de Venter, J. H. | Western Natural Gas Co. Inc., Calgary, Alta. |
| Wilson, Walter P. | Dept. of Industrial Development, Trade and Commerce, Victoria |

A L B E R T A

| | |
|---------------------|--|
| Manning, Hon. E. C. | Minister of Mines and Minerals, Edmonton |
| Somerville, H. H. | Deputy Minister of Mines and Minerals, Edmonton |
| Acorn, G. W. | Dept. of Mines and Minerals, Edmonton |
| Anderson, D. E. | Canada-Cities Service Petroleum Corp., Calgary |
| Badyk, J. S. | Canada-Cities Service Petroleum Corp., Calgary |
| Booth, H. | Pembina Pipe Line Ltd., Calgary |
| Connor, E. J. | Union Oil Co. of California, Calgary |
| Donnelly, C. W. | The Ohio Oil Co., Calgary |
| Doyle, R. A. | Mobil Oil of Canada Ltd., Edmonton |
| Dutton, J. A. | Dept. of Mines and Minerals, Edmonton |
| Fuller, K. W. | Oil and Gas Conservation Board, Calgary |
| Gadbois, R. N. | Shell Oil Co. of Canada Ltd., Calgary |
| Goodall, D. P. | Oil and Gas Conservation Board, Calgary |
| Gore, Brian R. B. | Medallion Petroleums Ltd., Calgary |
| Govier, Dr. G. W. | Oil and Gas Conservation Board, Calgary |
| Grant, E. R. | The Ohio Oil Co., Calgary |
| Hamilton, W. T. | French Petroleum Co. of Canada Ltd., Calgary |
| Harquail, F. J. | Coleman Collieries Ltd., Coleman |
| Howells, Dr. W. C. | Canadian Petroleum Assoc., Calgary |
| Jacobson, F. M. | Amurex Oil Co., Calgary |

A L B E R T A (Cont'd.)

| | |
|-------------------|--|
| Johnston, D. M. | Trans-Canada Pipe Lines Ltd., Toronto, Ont. |
| Jones, O. L. | Canadian Gas Assoc., Toronto, Ont. |
| Kelly, Fred | Imperial Oil Ltd., Calgary |
| Lee, John E. | Canadian Gas Assoc., Toronto, Ont. |
| Lewis, D. E. | Imperial Oil Ltd., Calgary |
| Livingstone, R.D. | Lethbridge Collieries Ltd., Lethbridge |
| Macleod, N. A. | Oil and Gas Conservation Board, Calgary |
| Patrick, J. W. | Dept. of Mines and Minerals, Edmonton |
| Proctor, John W. | Canadian Petroleum Assoc., Calgary |
| Redmond, J. F. | Shell Oil Co. of Canada Ltd., Calgary |
| Roche, J. W. | Shell Oil Co. of Canada Ltd., Calgary |
| Rutherford, W. | Dept. of Mines and Minerals, Edmonton |
| Seaton, R. A. | Dept. of Mines and Minerals, Edmonton |
| Stabbick, J. G. | Oil and Gas Conservation Board, Calgary |
| Stuart, G. C. | Hudson's Bay Oil and Gas Co. Ltd., Calgary |
| Stuart, W. D. | Canadian Petroleum Assoc., Ottawa, Ont. |
| Wilson, W. | The Canmore Mines Ltd., Canmore |

S A S K A T C H E W A N

| | |
|-------------------------|---|
| Brockelbank, Hon. J. R. | Minister of Mineral Resources, Regina |
| Cawley, James T. | Deputy Minister of Mineral Resources, Regina |
| Armstrong, Grant H. M. | Nicol, Keith and Armstrong, Regina |

S A S K A T C H E W A N (Cont'd.)

| | |
|---------------------|---|
| Barler. R. A. | Southwest Potash Corp., Toronto, Ont. |
| Barrett, R. E. | Eldorado Mining and Refining Ltd., Ottawa, Ont. |
| Blexrud, O. H. | Mobil Oil of Canada Ltd., Calgary, Alta. |
| Botsford, J. N. | Gunnar Mining Ltd., Toronto, Ont. |
| Brandt, Don R. | Trans-Prairie Pipelines Ltd., Edmonton, Alta. |
| Cheesman, Dr. R. L. | Dept. of Mineral Resources, Regina |
| Coons, R. M. | Dept. of Mineral Resources, Regina |
| Crozier, L. L. | Canadian Kewanee Ltd., Calgary, Alta. |
| Cull, H. C. | Whitehall Canadian Oils Ltd., Calgary, Alta. |
| Cummings, J. B. | Potash Co. of America, Saskatoon |
| Dahl, A. R. | Dept. of Mineral Resources, Regina |
| Davidson, C. R. | Alwinsal Potash of Canada Ltd., Regina |
| Dunlap, G. E. | Sun Oil Co. (Canadian Production Division), Calgary, Alta. |
| Fraser, H. J. | Ventures, Ltd., Toronto, Ont. |
| Furlong, D. B. | Producers Pipelines Ltd., Regina |
| Goddard, J. P. | Dept. of Mineral Resources, Regina |
| Green, W. H. | Gibson Petroleum Co. Ltd., Calgary, Alta. |
| Harvie, J. D. | Imperial Oil Ltd., Regina |
| Hay, C. | Royalite Oil Co. Ltd., Calgary, Alta. |
| Hicks, H. Brodie | Augustus Exploration Ltd., Toronto, Ont. |

S A S K A T C H E W A N (Cont'd.)

| | |
|---------------------|--|
| Knox, G. L. | The California Standard Co., Calgary, Alta. |
| Lawson, W. R. | Sifto Salt (1960) Ltd., Montreal, P.Q. |
| MacNicol, J. M. | Canadian Petroleum Association, Regina |
| Mallory, R. W. | Champlin Oil and Refining Co., Calgary, Alta. |
| McKown, Carl W. | U. S. Borax and Chemical Corp., Los Angeles, California |
| McMurray, J. R. | Texaco Exploration Co., Calgary, Alta. |
| Michener, C. E. | Canadian Nickel Co. Ltd., Toronto, Ont. |
| Mode, D. B. | Mines Branch, Dept. of Mineral Resources, Regina |
| Pearson, G. T. | Hudson's Bay Oil and Gas Co. Ltd., Calgary |
| Powell, L. W. | British American Oil Co. Ltd., Regina |
| Powell, W. E. | Canadian Husky Oil Ltd., Calgary, Alta. |
| Rupf, J. Albert | South Saskatchewan Pipe Line Co., Regina |
| Seibert, Kenneth T. | Sybouts Sodium Sulphate Co. Ltd., New York, New York. |
| Semple, E. Lindsay, | Great Northern Oil Purchasing Co., Regina |
| Smith, Jr., J. A. | The Pure Oil Co., Regina |
| Smith, J. P. | U. S. Borax and Chemical Corp., Los Angeles, California |

S A S K A T C H E W A N (Cont'd.)

| | |
|----------------------|--|
| Stark, D. J. | International Minerals and Chemical Corp., (Canada) Ltd., Esterhazy |
| Stevenson, J. R. | Kerr-McGee Oil Industries Inc., Calgary, Alta. |
| Tamaki, T. S. | Dept. of Mineral Resources, Regina |
| Thomson, Crawford M. | Manitoba and Saskatchewan Coal Co Ltd., Winnipeg, Man. |
| Torrance, T. J. | Standard Chemical Limited, Beauharnois, P.Q. |
| Tyerman, D. M. | McPherson, Leslie & Tyerman, Regina |
| Upham, M. A. | International Mineral and Chemical Corp. (Canada) Ltd., Esterhazy |
| Whittaker, W. C. | Coal Operators' Assoc. of Western Canada, Calgary, Alta. |
| Williams, A. J. | Dept. of Mineral Resources, Regina |

M A N I T O B A

| | |
|-------------------------|---|
| Witney, Hon. Charles H. | Minister of Mines and Natural Resources, Winnipeg |
| Cowan, J. G. | Deputy Minister of Mines and Natural Resources, Winnipeg |
| Caswell, C. F. | San Antonio Gold Mines Ltd., Bissett |
| Davies, J. F. | Dept. of Mines and Natural Resources, Winnipeg |
| Duff, J. A. | Canadian National Railways, Winnipeg |
| Ewens, T. | Dept. of Mines and Natural Resources, Winnipeg |

M A N I T O B A (Cont'd.)

| | |
|-----------------|--|
| Junker, R. H. | Dept. of Mines and Natural Resources, Winnipeg |
| Muter, J. Ross | Sherritt Gordon Mines Ltd., Lynn Lake |
| Richards, J. S. | Dept. of Mines and Natural Resources, Winnipeg |
| Roche, M. A. | Hudson Bay Mining and Smelting Co. Ltd., Winnipeg |
| Roper, J. S. | Mid-West Metal Mining Assoc., Winnipeg |

O N T A R I O

| | |
|------------------------|---|
| Maloney, Hon. James A. | Minister of Mines, Toronto |
| Douglass, D. P. | Deputy Minister of Mines, Toronto |
| Archbold, W. D. | Imperial Oil Ltd., Toronto |
| Barrett, C. M. | Dept. of Mines, Toronto |
| Bawden, W. E. | Dept. of Mines, Toronto |
| Beattie, J. | Ontario Mining Assoc., Toronto |
| Beck, C. M. | Algoma Steel Corp. Ltd., Sault Ste. Marie |
| Brittain, W. D. | Dept. of Energy Resources, Toronto |
| Brown, L. C. | Dept. of Mines, Toronto |
| Buckle, F. | Wright-Hargreaves Mines Ltd., Kirkland Lake |
| Casey, J. C. | Dept. of Energy Resources, Toronto |
| Chisholm, J. C. | Jack Chisholm Film Productions Ltd., Toronto |

O N T A R I O (Cont'd.)

| | |
|--------------------------|--|
| Clarkson, S. W. | Dept. of Energy Resources, Toronto |
| Crayston, E. G. | Madsen Red Lake Gold Mines Ltd., Madsen |
| Crozier, A. R. | Dept. of Energy Resources, Toronto |
| Dickson, A. D. | Mining Corp. of Canada Ltd., Toronto |
| Ebbutt, F. | Prospectors and Developers Assoc., Toronto |
| Fotheringham, M. S. | Steep Rock Iron Mines Ltd., Steep Rock Lake |
| Frohberg, Dr. M. H. | The Geological Assoc. of Canada, Toronto |
| Gerow, C. | Canadian Institute of Mining and Metallurgy, Montreal, P.Q. |
| Girdwood, C. P. | Dome Mines Ltd., South Porcupine |
| Godin, J. Kenneth | McIntyre Porcupine Mines Ltd., Toronto |
| Huffman, M. J. | Imperial Oil Ltd., Toronto |
| Hurst, Dr. M. E. | Dept. of Mines, Toronto |
| Kelly, T. J. | Dept. of Mines, Toronto |
| Kostuik, J. | Denison Mines Ltd., Toronto |
| Langford, Dr. G. B. | University of Toronto, Toronto |
| Lee, B. C. | Dept. of Mines, Toronto |
| MacMillan, George A. | Prospectors and Developers Assoc., Toronto |
| MacMillan, Mrs. Viola R. | Prospectors and Developers Assoc., Toronto |

O N T A R I O (Cont'd.)

| | |
|--------------------|---|
| McFarland, J. F. | Dept. of Mines, Toronto |
| McIntosh, S. W. | Ontario Mining Assoc., Toronto |
| Moore, W. E. | Dept. of Energy Resources, Toronto |
| Mott, R. C. | Falconbridge Nickel Mines Ltd., Sudbury |
| O'Brian, C. L. | Dominion Coal Board, Ottawa |
| Perry, E. A. | Hollinger Consolidated Gold Mines Ltd., Timmins |
| Pigott, J. A. | The International Nickel Co. of Canada, Ltd., Copper Cliff |
| Rice, Prof. H. R. | University of Toronto, Toronto |
| Rickaby, H. C. | Oakville |
| Roliff, W. A. | Imperial Oil Ltd., Toronto |
| Scott, R. V. | Dept. of Mines, Toronto |
| Smith, R. L. | Dept. of Mines, Toronto |
| Sutherland, D. H. | Dept. of Energy Resources, Toronto |
| Thomson, Dr. J. E. | Dept. of Mines, Toronto |
| Wansbrough, V. C. | Canadian Metal Mining Assoc., Toronto |
| Woods, W. H. | Industrial Minerals Ltd., Toronto |

Q U E B E C

| | |
|---------------------|---|
| Lévesque, Hon. René | Minister of Natural Resources, Quebec |
| Auger, Dr. P. E. | Deputy Minister of Natural Resources, Quebec |

Q U E B E C (Cont'd.)

| | |
|--------------------------|---|
| Beaudet, C. O. | Dept. of Natural Resources, Quebec |
| Belanger, Michel | Dept. of Natural Resources, Quebec |
| Bellemare, Dr. Bertrand | Quebec Workmen's Compensation Board, Quebec |
| Cooke, F. G. | Quebec Metal Mines Accident Prevention Assoc., Chapais |
| DeBlois, Roland | Dept. of Natural Resources, Quebec |
| Dufresne, Dr. A. O. | Quebec |
| Gilbert, Dr. J. E. | Dept. of Natural Resources, Quebec |
| Graham, H. R. | Bevcon Mines Ltd., Perron |
| Grenier, Dr. P. E. | Dept. of Natural Resources, Quebec |
| Johnson, W. J. | Johnson's Company Ltd., Thetford Mines |
| Jones, Dr. I. W. | Dept. of Natural Resources, Quebec |
| Lacaille, Georges E. | Quebec Metal Mining Assoc., Quebec |
| Lafontaine, M. O. | Dept. of Natural Resources, Quebec |
| Landreville, Miss Gisele | Dept. of Natural Resources, Quebec |
| Larochelle, Eugene | Quebec Metal Mining Assoc., Quebec |
| Little, T. E. | Waite Amulet Mines, Noranda |
| Luciani, S. A. | Quebec Iron and Titanium Corp., Havre |
| McGerrigle, Dr. H. W. | Dept. of Natural Resources, Quebec |
| O'Connell, F. J. | Quebec Metal Mining Assoc., Bourlamaque |
| Ralston, K. M. | Canadian National Railways, Montreal |
| Rudolf, Robert G. | Noranda Mines Ltd., Toronto, Ont. |

Q U E B E C (Cont'd.)

| | |
|-----------------|---|
| Small, R. L. | Canadian Pacific Railway, Montreal |
| Whimster, J. E. | Canadian Pacific Railway, Toronto, Ont. |
| Wiltsey,, W. J. | Noranda |

N E W B R U N S W I C K

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| Crocker, Hon. H. Graham | Minister of Lands and Mines, Fredericton |
| Brown, K. B. | Deputy Minister of Lands and Mines, Fredericton |
| Clements, C. S. | Director, Mines Branch, Dept. of Lands and Mines, Fredericton |
| Carr, G. F. | Mines Branch, Dept. of Lands and Mines, Fredericton |
| Corbet, J. M. R. | Area Mines Ltd., Toronto, Ont. |
| Coughlan, E. K. | Mines Branch, Dept. of Lands and Mines, Fredericton |
| Dumbrille, J. C. | Nigadoo Mines Ltd., Toronto, Ont. |
| Goranson, Dr. E. A. | New Jersey Zinc Exploration Co. (Canada) Ltd., Ottawa, Ont. |
| Hammond, W. P. | Conwest Exploration Co. Ltd., Toronto, Ont. |
| Howbert, John C. | Heath Steele Mines Ltd., New York, N. Y. |
| Moore, G. Neely | The Consolidated Mining and Smelting Co. of Canada Ltd., Montreal, P.Q. |
| Rankin, J. J. | Chesterville Mines Ltd., Toronto, Ont. |
| Riddell, Dr. John E. | Mount Pleasant Mines Ltd., Ottawa, Ont. |

N E W B R U N S W I C K (Cont'd.)

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| Scott, C.E. | Miramichi Lumber Co. Ltd., Minto |
| Smith, J. C. | Mines Branch, Dept. of Lands and Mines, Fredericton |
| Spence, W. I. | Mines Branch, Dept. of Lands and Mines, Bathurst |
| Streeter, Percival | Avon Coal Co. Ltd., St. John |
| Sullivan, C. John | Kennco Explorations (Canada) Ltd., Toronto, Ont. |
| Swensen, W. T. | The Anaconda Company (Canada) Ltd., Toronto, Ont. |
| Tooke, A. M. | Minto |

N O V A S C O T I A

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|-------------------|---|
| Nowlan, J. P. | Deputy Minister of Mines, Halifax |
| Brown, E. D. | National Gypsum Co., Burnside |
| Burchell, D. G. | Bras d'Or Coal Co., Bras d'Or |
| Cunningham, C. D. | Dominion Coal Co. Ltd., Montreal, P. Q. |
| Doxey, Frank | Dominion Coal Co. Ltd., Sydney |
| Gordon, H. C. M. | Dominion Coal Co. Ltd., Sydney |
| Goudge, M. G. | Dept. of Mines, Halifax |
| Mifflen, S. C. | Dominion Coal Co. Ltd., Sydney |
| Murray, D. | Dept. of Mines, Halifax |
| Wright, J. D. | Dept. of Mines, Halifax |

N E W F O U N D L A N D

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| Gover, Dr. F. | Deputy Minister of Mines, Dept. of Mines, Agriculture and Resources, St. John's |
| Durrell, W. H. | Labrador Mining & Exploration Co. Ltd., Montreal, P.Q. |
| Hawkanson, R. J. | Pickands Mather & Co., Cleveland, Ohio |
| Johnston, Derek | Dept. of Mines, Agriculture and Resources, St. John's |
| Southey, V. J. | Dominion Wabana Ore Ltd., Bell Island |

F E D E R A L

| | |
|-----------------|---|
| Boyer, Dr. Marc | Deputy Minister of Mines and Technical Surveys, Ottawa |
| Buck, W. K. | Dept. of Mines and Technical Surveys, Ottawa |
| Dale, D. K. | National Energy Board, Ottawa |
| Davidson, A. T. | Dept. of Northern Affairs and National Resources, Ottawa |
| Evans, L. S. | Dominion Bureau of Statistics, Ottawa |
| Hodgson, E. C. | Dept. of Mines and Technical Surveys, Ottawa |
| Hunt, A. D. | Dept. of Northern Affairs and National Resources, Ottawa |
| Jordan, A. T. | Dept. of Northern Affairs and National Resources, Ottawa |
| Kimbell, H. P. | Dept. of Mines and Technical Surveys, Ottawa |

F E D E R A L (Cont'd.)

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|-----------------|---|
| Lord, Dr. C. S. | Dept. of Mines and Technical Surveys, Ottawa |
| MacLaren, I. | Dominion Coal Board, Toronto |
| McKinnon, Ian | National Energy Board, Ottawa |
| McLeod, H. | Dominion Bureau of Statistics, Ottawa |
| Toombs, R. B. | Dept. of Mines and Technical Surveys, Ottawa |

LIST OF LADIES PRESENT

B R I T I S H C O L U M B I A

| | |
|-------------------------|-----------------|
| Brett, Mrs. Floyd | Calgary, Alta. |
| Ewart, Mrs. T. G. | Fernie, B. C. |
| Joynt, Mrs. K. R. | Calgary, Alta. |
| McGillivray, Mrs. G. B. | Victoria, B. C. |
| Mulcahy, Miss Denise C. | Victoria, B. C. |
| Poyen, Mrs. J. S. | Calgary, Alta. |
| Scott, Mrs. E. W. | Calgary, Alta. |

A L B E R T A

| | |
|-----------------------|-----------------|
| Anderson, Mrs. D. E. | Calgary, Alta. |
| Badyk, Mrs. J. S. | Calgary, Alta. |
| Booth, Mrs. H. | Calgary, Alta. |
| Connor, Mrs. E. J. | Calgary, Alta. |
| Dutton, Mrs. J. A. | Edmonton, Alta. |
| Gadbois, Mrs. R. N. | Calgary, Alta. |
| Jacobson, Mrs. F. M. | Calgary, Alta. |
| Johnston, Mrs. D. M. | Toronto, Ont. |
| Lewis, Mrs. D. E. | Calgary, Alta. |
| Proctor, Mrs. John W. | Calgary, Alta. |
| Redmond, Mrs. J. F. | Calgary, Alta. |
| Roche, Mrs. J. W. | Calgary, Alta. |

S A S K A T C H E W A N

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|-------------------------|-----------------|
| Barker, Mrs. R. A. | Toronto, Ont. |
| Barrett, Mrs. R. E. | Ottawa, Ont. |
| Blexrud, Mrs. O. H. | Calgary, Alta. |
| Botsford, Mrs. J. N. | Toronto, Ont. |
| Brandt, Mrs. Don. R. | Edmonton, Alta. |
| Cawley, Mrs. James T. | Regina, Sask. |
| Crozier, Mrs. L. L. | Calgary, Alta. |
| Cull, Mrs. N. C. | Calgary, Alta. |
| Davidson, Mrs. C. R. | Regina, Sask. |
| Fraser, Mrs. H. J. | Toronto, Ont. |
| Furlong, Mrs. D. B. | Regina, Sask. |
| Goddard, Mrs. J. P. | Regina, Sask. |
| Green, Mrs. W. H. | Calgary, Alta. |
| Harvie, Mrs. J. D. | Regina, Sask. |
| Hay, Mrs. C. | Calgary, Alta. |
| Hicks, Mrs. H. Brodie | Toronto, Ont. |
| Michener, Mrs. C. E. | Toronto, Ont. |
| Pearson, Mrs. G. T. | Calgary, Alta. |
| Powell, Mrs. L. W. | Calgary, Alta. |
| Powell, Mrs. W. E. | Calgary, Alta. |
| Semple, Mrs. E. Lindsay | Regina, Sask. |
| Smith, Jr., Mrs. J. A. | Regina, Sask. |

S A S K A T C H E W A N (Cont'd.)

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| Thomson, Mrs. Crawford M. | Winnipeg, Man. |
| Tyerman, Mrs. D. M. | Regina, Sask. |

M A N I T O B A

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| Caswell, Mrs. C. F. | Bissett, Man. |
| Roche, Mrs. M. A. | Winnipeg, Man. |
| Roper, Mrs. J. S. | Winnipeg, Man. |

O N T A R I O

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|--------------------------|------------------------|
| Archbold, Mrs. W. D. | Toronto, Ont. |
| Barrett, Mrs. C. M. | Toronto, Ont. |
| Bawden, Mrs. W. E. | Toronto, Ont. |
| Beattie, Mrs. J. | Toronto, Ont. |
| Beck, Mrs. C. M. | Sault Ste. Marie, Ont. |
| Brittain, Mrs. W. D. | Toronto, Ont. |
| Brown, Mrs. L. C. | Toronto, Ont. |
| Buckle, Mrs. F. | Kirkland Lake, Ont. |
| Casey, Mrs. J. C. | Toronto, Ont. |
| Clarkson, Mrs. S. W. | Toronto, Ont. |
| Crayston, Mrs. E. G. | Madsen, Ont. |
| Dickson, Mrs. A. D. | Toronto, Ont. |
| Fotheringham, Mrs. M. S. | Steep Rock Lake, Ont. |

O N T A R I O (Cont'd.)

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| Frohberg, Mrs. M. H. | Toronto, Ont. |
| Gerow, Mrs. C. | Montreal, P.Q. |
| Godin, Mrs. J. Kenneth | Toronto, Ont. |
| Huffman, Mrs. M. J. | Toronto, Ont. |
| Hurst, Mrs. M. E. | Toronto, Ont. |
| Kostuik, Mrs. J. | Toronto, Ont. |
| Langford, Mrs. G. B. | Toronto, Ont. |
| Lee, Mrs. B. C. | Toronto, Ont. |
| McFarland, Mrs. J. F. | Toronto, Ont. |
| Maloney, Mrs. James A. | Renfrew, Ont. |
| Mott, Mrs. R. C. | Sudbury, Ont. |
| Rickaby, Mrs. H. C. | Oakville, Ont. |
| Roliff, Mrs. W. A. | Toronto, Ont. |
| Scott, Mrs. R. V. | Toronto, Ont. |
| Smith, Mrs. R. L. | Toronto, Ont. |
| Stevens, Mrs. G. T. | Toronto, Ont. |
| Sutherland, Mrs. D. H. | Toronto, Ont. |
| Thomson, Mrs. J. E. | Toronto, Ont. |

Q U E B E C

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|--------------------------|-------------------------|
| Beaudet, Mrs. C. O. | Quebec, P.Q. |
| Bellemare, Mrs. Bertrand | Quebec, P.Q. |
| Cooke, Mrs. F. G. | Chapais, P.Q. |
| Graham, Mrs. H. R. | Perron, P.Q. |
| Jones, Mrs. I. W. | Quebec, P.Q. |
| Lafontaine, Mrs. M. O. | Quebec, P.Q. |
| Little, Mrs. T. E. | Noranda, P.Q. |
| Luciani, Mrs. S. A. | Havre, St. Pierre, P.Q. |
| O'Connell, Mrs. F. J. | Bourlamaque, P.Q. |
| Whimster, Mrs. J. E. | Toronto, Ont. |

N E W B R U N S W I C K

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| Corbet, Mrs. J. M. R. | Toronto, Ont. |
| Dumbrille, Mrs. J. C. | Toronto, Ont. |
| Goranson, Mrs. E. A. | Ottawa, Ont. |
| Hammond, Mrs. W. P. | Toronto, Ont. |
| Howbert, Mrs. John C. | New York, N. Y. |
| Moore, Mrs. G. Neely | Montreal, P.Q. |
| Scott, Mrs. C. E. | Minto, N. B. |
| Sullivan, Mrs. John | Toronto, Ont. |
| Swensen, Mrs. W. T. | Toronto, Ont. |

N O V A S C O T I A

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|----------------------|---------------------------|
| Brown, Mrs. E. D. | Burnside (Dartmouth) N.S. |
| Burchell, Mrs. D. G. | Bras d'Or, N.S. |
| Nowlan, Mrs. J. P. | Halifax, N.S. |
| Wright, Mrs. J. D. | Halifax, N.S. |

N E W F O U N D L A N D

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|---------------------|----------------|
| Durrell, Mrs. W. H. | Montreal, P.Q. |
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F E D E R A L

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| Boyer, Mrs. Marc | Ottawa, Ont. |
| Kimbell, Mrs. H. P. | Ottawa, Ont. |

OPENING PLENARY SESSION

Chairman - Mr. D. P. Douglass,
Deputy Minister of Mines
of the Province of Ontario.

The first meeting of the Mines Ministers, Deputy Ministers and delegates to the Conference was called to order at 10:30 a.m., on September 18, 1961.

Mr. D. P. Douglass addressed the delegates as follows:

Honourable Sirs, Ladies and Gentlemen:

We had hoped to have our Minister with us but illness has kept him at his home; however, we expect that he will be able to join us before this Conference is over.

This is the Eighteenth Meeting of the Ministers of the mining Provinces of Canada, who, with the senior members of their staffs, have joined with representatives of the mining industry to discuss in a friendly, informal and mutually helpful manner, the problems and opportunities with which we are faced.

This Annual Conference is an outgrowth of an informal meeting of six Mines Ministers who were brought together in Vancouver in 1944 on the occasion of the Annual Meeting of The

Canadian Institute of Mining and Metallurgy. At that time they decided that the interests of all their Provinces might well be served by a regular exchange of ideas among the several Departments. As a result, the first Conference was held in Quebec in April, 1945, and in November of the same year, Ontario had its first opportunity to entertain the delegates to the second Conference.

The Conference has grown in attendance and in scope every year since, and I am sure that its founding fathers could not have foreseen that it would develop to its present stature. You will be interested to know that so far there have been 382 registrations for this year's Conference, including - I am happy to say - 121 ladies who will add colour and enjoyment to the proceedings.

I am extremely happy to be able to welcome the Honourable René Lévesque as a new member of the fraternity of Mines Ministers. Mr. Lévesque, who spoke to us at last year's Conference Dinner in Quebec, has since then taken over the portfolio of Natural Resources in his Province. I should also like to welcome Mr. Lévesque's Deputy Minister, Dr. Paul Auger.

Although Mr. Harold Rickaby, who for a great many years guided the Minister of the Ontario Department of Mines and his staff, has retired since last year's Conference, he has

certainly not relinquished his interest in the Department and the mining industry. It is a real pleasure to welcome Mr. Rickaby and his charming wife to this Conference.

I regret that the Honourable W. K. Kiernan, Minister of Mines and Petroleum Resources, British Columbia, the Honourable W. J. Keough, Minister of Mines and Resources, Newfoundland, and the Honourable E. A. Manson, Minister of Mines, Nova Scotia, will not be present. Their unavoidable absence is deeply regretted and their advice and counsel will be missed.

I should like to introduce the other Provincial Ministers and those Deputy Ministers who are representing their Minister.

Starting on my right -

Mr. Fred Gover, Deputy Minister of Mines and Resources, Newfoundland, representing the Honourable W. J. Keough.

Dr. Jim Nowlan, Deputy Minister of Mines, Nova Scotia, representing the Honourable E. A. Manson.

Honourable H. Graham Crocker, Minister of Lands and Mines, New Brunswick.

Honourable René Lévesque, Minister of Natural Resources, Quebec.

Monsieur Lévesque - Je regrette mon françois est tres mauvais, mais bienvenue dans le province d'Ontario.

On my left -

Honourable C. H. Witney, Minister of Mines and Natural Resources, Manitoba.

Honourable J. H. Brockelbank, Minister of Mineral Resources, Saskatchewan.

Honourable E. C. Manning, Minister of Mines and Minerals, Alberta.

Mr. P. J. Mulcahy, Deputy Minister of Mines and Petroleum Resources, British Columbia, representing the Honourable W. K. Kiernan.

We are always happy to have with us representatives of the Canadian Government. We can expect a sympathetic hearing of any recommendations we take from this Conference to Ottawa, and we always feel that the Honourable Paul Comtois serves as friend as well as an adviser between the Provincial Ministers and the Federal Cabinet. It goes without saying that we are happy that Mr. Comtois will be able to attend these meetings. He plans to join us to-morrow. We are equally pleased to have with us his Deputy Minister, our friend, Dr. Marc Boyer. It is unfortunate that other business has made it impossible for the Honourable Walter Dinsdale, Minister of Northern Affairs and National Resources, to be with us.

I want to thank Mrs. MacMillan for taking time out to be with us. We all know of her efforts on behalf of the mining industry.

While there are with us at this Conference too many representatives of the various sectors of the industry which we serve for me to single out any individuals, please accept from me, on behalf of the Government of Ontario and on behalf of all the Ministers, a most hearty welcome. As you are aware, we lean heavily on the industry for guidance in the matters in which we are mutually interested.

I am sure you will understand the glow of pride we feel in being privileged to serve as host to this, the biggest Conference we have ever had. The members of the staff of the Ontario Department of Mines join with me in extending a most hearty welcome to all of you. I feel that I have been blessed with a splendid committee and want to take this opportunity to thank them. For most of you, I know, this is not your first visit to Toronto - and I most certainly hope that it will not be your last. I trust that during your stay you will find time to see as much as possible of Toronto and the surrounding area. Ladies bent on shopping will find plenty to interest them.

It may be that while you are here, some of you will want to visit the Ontario Government Buildings and our Department of Mines. Let me assure you that you will be most welcome, and if you make your desires known to the Committee Members or at the Registration Desk, transportation to Queen's Park will be

arranged for you.

You will have noted in the Agenda that this Conference - like its predecessors - will be devoted very largely to long hours of real work for most of us. There is no other way in which the tasks we have set out to do can be accomplished. Nevertheless, in drawing up the Programme, we have tried to make sure that it will not be a case of "all work and no play". While nearly all of us are old friends, the Coffee Party last evening was intended to make certain that everyone here had an opportunity to renew acquaintances, or to become acquainted with everyone else.

This evening the Ontario Mining Association will be our hosts at an Old Fashioned Square Dance - in which participation by everybody will be almost mandatory - and refreshments will be served.

To-morrow we have arranged a bus tour of some of the more interesting parts of Metropolitan Toronto for the ladies. During the tour the ladies will stop off for luncheon at The Guild Inn in Scarborough.

The Conference Dinner to-morrow evening will be preceded by a Reception, at which again we will be the guests of the Ontario Mining Association. This will be followed by a

Floor Show, for which some top-notch talent has been secured.

Now for the business of the Conference. Generally it will follow the format that has been developed in other years. Six Committees, each under the Chairmanship of a Deputy Minister, will meet separately in the rooms that have been assigned to them, this afternoon, to-morrow morning and to-morrow afternoon. It may be that some Committees have so long an agenda that extra meeting time will have to be arranged. If this is so, let us know at the Conference Desk and the necessary arrangements will be made.

The following are the Chairmen who have been appointed to head up the Committees:

| <u>Committee</u> | <u>Chairman</u> |
|--|---|
| No. 1 - Mining Operations | Dr. P. E. Auger Mr. F. Gover |
| No. 2 - Geology, Geophysics and Prospecting | Mr. P. J. Mulcahy |
| No. 3 - Royalties, Taxation and Tariffs | Mr. J. T. Cawley |
| No. 4 - Coal | Dr. J. P. Nowlan |
| No. 5 - Petroleum and Natural Gas | Mr. H. H. Somerville Mr. J. G. Cowan |
| No. 6 - Education | Mr. K. B. Brown |

I would ask that Ministers who have not yet assigned members of their delegations to the various Committees, do so

immediately after this Plenary Session closes. Apart from these formal appointments, of course, any delegate is welcome to attend any Committee Meeting in which he is interested.

It is suggested that the usual procedure should be followed in having all discussions in committee "off the record" in order to promote the free and uninhibited exchange of ideas. Stenographic assistance will be available to any Committee Chairman for the preparation of his Committee's recommendation to the Ministers.

An agenda of matters for discussion by each Committee has been drawn up on the basis of advance recommendations from the several Provinces. However, it is not the intention that the Committees' deliberations should be necessarily confined to this agenda. All Committees are invited - indeed urged - to discuss and make recommendations on any subject falling within their terms of reference.

I would ask that each Committee Chairman present his written report for the Ministers' consideration just as quickly as he possibly can after his Committee has concluded its work. Early receipt of these reports will ease the load of last minute work by the Ministers very materially.

Between now and Wednesday morning when the Closing Plenary Session will be convened in the Ballroom, a great deal of work and a great deal of serious thought will have been devoted to the furtherance of Canada's mining industry and the efforts of the mining departments which we represent. May these efforts prove to be fruitful.

And now, I can think of no better way in which we can get an accurate overall picture of how the industry stands in this country, than by hearing the story directly from the man who makes it his business to know all about all developments in Canada. I refer, of course, to Mr. Vic Wansbrough, the Executive Director of the Canadian Metal Mining Association. Mr. Wansbrough, who has been the spokesman for Canada's mining industry for so many years and in so many places that he could well be known as "Mr. Canadian Miner", can always be relied upon to paint a true picture of the situation as it exists and an accurate picture of what is likely to develop.

Ladies and Gentlemen -

Mr. V. C. Wansbrough!

CURRENT PROSPECTS AND PROBLEMS

An Address

Delivered to the

Opening Plenary Session

MINES MINISTERS CONFERENCE

Toronto, September 18th, 1961

by

V. C. Wansbrough

Vice-President and Managing Director

Canadian Metal Mining Association

Mr. Chairman, Honourable Ministers and Gentlemen,

It is indeed an honour and a privilege to be invited to address you at this Opening Session of your Conference.

These annual conferences over the last eighteen years have built up quite an interesting history of their own. They have, I am sure, proved of considerable value to the Ministers themselves in bringing them into closer personal contact with their fellow Ministers from other provinces on occasions when experiences can be shared and views exchanged with mutual advantage. It is interesting to note that the Premiers of the Provinces have decided to follow the good example set by

their Ministers of Mines and meet henceforth in annual conference.

Members of the industry, especially those who hold office in the provincial Mining Associations, have, I know, deeply appreciated the repeated invitations to attend your conferences as unofficial advisers and, while gratefully aware that they are your guests, realize that they are not the kind of guests who are expected to be seen but not heard.

As for myself, I and my colleagues who are officers of a national organization, regard your invitation as a very special courtesy which we highly value. And I should like to preface my remarks by expressing, on behalf of myself and my colleagues of the Canadian Metal Mining Association, our warm thanks for your invitation to attend, and to participate in, your sessions.

Now it is clearly not my function to deal specifically with provincial questions, but inasmuch as the provinces do not operate in a vacuum but in a broad federal framework, it is not reasonable, or indeed possible, to ignore the close interplay of provincial policies with federal policies and vice versa. Both have to be considered jointly in the overall effects which they exert on industry. It is from this springboard that I propose to plunge for a few minutes into my remarks.

But first, permit me to say that gathered as we are in September 1961 to consider and discuss matters of common interest to provincial governments, one is deeply and sympathetically aware how disastrous a summer we have experienced. Our profound sympathy goes out to the authorities and the people of those provinces which have suffered so drastically either from drought, as in the Prairie Provinces, or from highly destructive fires, as also in the Prairie Provinces and particularly at the two extremities of our country, British Columbia and Newfoundland. This has indeed been a shocking devastation of our forest and agricultural resources and a terrible loss of natural wealth and the fruits of much human endeavour. It has been a sad and sobering reminder of how susceptible and vulnerable much of our natural wealth is to the unpredictable ravages of nature.

We, who are concerned with another segment of those natural resources on which the economy of this country is so heavily dependent, we of the mining industry, have every reason to be grateful that our mineral resources are not so exposed to nature's destructive forces.

My purpose, today, is to review in as concise a manner as possible some current prospects and problems of the mining

industry. Though I shall deal only incidentally with matters provincial, it may be of some use to survey the broad outlook and those overriding conditions to which, if we are all to succeed and prosper as we hope, all policies, federal and provincial, must be adjusted and attuned. In the first place, then, the mining industry in this country, overall and on a national scale, continues to make notable progress.

In 1960 our total mineral production rose to a dollar figure of \$2.47 billion, two and a half times greater than it was ten years before. Of this total, industrial minerals accounted for \$194 million, the chief of them, asbestos, reaching a new and record peak of \$118 million.

Structural materials accounted for \$315 million and mineral fuels \$562 million.

The balance, approximately \$1.4 billion, represented the value of our metal products. This is an all time high for Canada and, as I am sure you will agree, a very substantial increment indeed to our national prosperity.

Now, one cannot be too despondent or gloomy about an industry with a record of growth of two and a half times in value during a single decade.

But it would appear, to me at least, that there are two points worthy of notice if we begin to delve below the surface of these figures. First, progress has not been evenly spread through all segments of the industry; and, secondly, some of the conditions which made this progress possible have changed drastically or are in process of changing.

As for the first point, 1960 was a bad year, as we all know, for uranium and iron ore. Uranium production, which in 1959 was the largest single dollar-earning segment of the industry with a value of \$331 million, felt the impact of the refusal of the United States Atomic Energy Commission to take up its options for additional tonnages. Accordingly a stretch-out programme was instituted, and uranium production declined by some 6.7 million pounds and \$68 million.

Likewise, owing to the continued slow-down of the United States steel industry, our shipments of iron ore fell by 3 million tons for a loss of \$21 million.

Lead production was somewhat reduced; zinc production showed a modest increase.

Nickel and copper, with their associated precious metals, proved our mainstay. During the recent years when some depression was experienced, output of these metals remained

steady, a contribution to stability of operations which producing companies achieved at some cost to themselves.

Gold production also continued steadily with its even output of about 4.5 million ounces a year.

It would be a mistake, therefore, to conclude that all goes well with all segments of the industry. We have to hope that the reported upswing in economic activity in the United States will give a stimulus to our base metals and iron ore; also, that arrangements made for the uranium contract with the Government of the United Kingdom and results flowing from research into new industrial uses for that metal will combine to give brighter tints to the prospects of uranium producers.

Certainly a significant advantage will accrue to all sections of the industry by the long-awaited return of the Canadian dollar to a discount.

So much for my first point. I turn now to the other consideration which I mentioned, namely that some of the conditions which made our previous progress possible have changed drastically or are in process of changing.

The drastic change to which I refer is this. In the post-war years through to the second half of the 1950's, we on

the North American continent were sitting pretty. Our industrial capacity, expanded by wartime demands, suffered no damage, while that of other industrial countries, whether in Europe or in the Far East, whether allied or enemy, was bombed and blasted almost out of existence. For a decade, 1945-1955, or a little longer, we had it all our own way and developed a good deal of fat, off which we continued to live comfortably.

But the industrial resurrection of the countries of western Europe and Japan from the ashes of war devastation was little short of miraculous; and, it seems to me in retrospect and with the benefit of hindsight, that we were much too complacent, and far too slow to wake up to the facts of the situation and to what was actually happening. Now, I think, with something of a shock of disillusion, we are beginning to be alive to the realities which confront us. And the chief and stark reality which confronts us is that we cannot continue to expect to prosper if, in conditions of intensely competitive international trade, we price ourselves out of the game and are content to sit without struggle and effort in splendid economic isolation on the high-cost plateau of the North American continent. The question is: can we adjust and what are the terms of adjustment?

First, let us remind ourselves that we in Canada are

dependent on our export trade for one-quarter of our annual national income.

Further, the most important segment of that export trade has now become our metal and mineral products, which constitute 20% of our total exports; or 40%, if we include semi-manufactured and manufactured metal products.

The stakes therefore are high. The mining industry is in the very front line of the struggle to maintain and expand our markets.

The crucial question is: shall we or shall we not remain competitive?

Of course we must remain competitive, or else the roots of our prosperity and progress wither away.

But personally I doubt very much whether we are yet prepared, practically or psychologically, to take the stiff dose of distasteful medicine needed for the cure.

To compete successfully means maintaining or expanding our present markets and finding new ones, while holding the line or reducing overall operating costs.

In the first place, maintaining and, if possible,

expanding our markets is not an easy or simple job.

Far and away our largest market is the United States, taking some 60 to 65% of what the mining industry has to export. We are all aware that protectionist sentiment has been rising high in that country of recent years. Quotas on imports of lead and zinc have been imposed by the United States Government since October 1958. There is a continuing threat to increase, by as much as threefold, United States import duties on these metals. Twice recently the proposal has been advanced in Congress that a quantitative restriction be placed on imports of iron ore. Increased tariff duties on copper were allowed to become effective again, after some years of suspension; and so on.

As regards our second largest market, the United Kingdom and Europe, the situation is in a state of flux. We may anticipate some adverse consequences in terms of our mineral exports as a result of the common tariffs established by the "Inner Six," however advantageous in the long run access to such a huge market may prove to be. A further question mark concerns the effect of the United Kingdom joining the European Economic Community and the terms on which she is eventually admitted. Although it is too early for any final judgment in this connection, we note that there are some grounds for concern about the possible effect of these developments on our mineral

export trade.

To these factors of uncertainty is added another, the development of mineral deposits and properties in Latin America, in Africa and other so-called "underdeveloped" countries, where wage-rates and other elements of cost are only fractional when compared with ours.

These, plus some competition at cut prices from behind the Iron Curtain, are circumstances very different from those which prevailed only a few years ago and to which the mining industry in this country must adjust itself, if the momentum of recent progress is to be maintained.

Any built-in rigidities in cost-structure, such as wage-rates and benefits and taxes, impair the flexibility needed for such radical readjustment.

In the mining industry wages with associated benefits run to 60 to 65% of total operating costs. Of course, we all want to maintain high standards of living and a far better level of employment that we have recently been able to sustain in this country. But we are not yet in a position to sustain United States standards in all respects. Only harm and distress can result from pressures from international labour unions to insist on a parity of wages and benefits between this country and the

United States.

This summer we have had a distressing example of the injury that can be done to the national economy by such strikes as those of the longshoremen of Toronto and Hamilton. Labour relations are primarily a provincial responsibility. Surely the time has come when we must take a more serious view of irresponsible work-stoppages where such grave consequences flow from these exhibitions of immature behaviour.

Certainly there seems to be urgent need either for improved machinery for the settlement of strikes or for bolder and more effective use of the machinery now at hand.

As regards taxes, it is hardly to be expected that there will be a harmonious meeting of minds between those who impose them and those who pay them.

Industry in Canada to-day is sustaining a level of taxation built up and established at a time of national and international crisis. Yet tax revenues, whether federal, provincial or municipal, appear inadequate to do the job which government authorities, at all levels, have committed themselves to perform. Heavy deficits are still the order of the day, certainly in the federal field; and all governments are straining and searching

strenuously for new sources of revenue. There appears to be no determined and co-operative effort to keep within bounds, let alone to reduce, the growing dimensions of the overall tax burden. Most disconcerting is the doubt which prevails concerning the future tax relationships between the federal and the provincial governments. Governments resemble Oliver Twist in asking for more, but, unlike him, they have the power to enforce their demands.

We speak with pride of the political stability which we enjoy in this country. It is indeed a precious and valuable asset.

But between ourselves we have to confess that some political authorities are quite capable still of making surprise moves and employing shock tactics which undermine and impair confidence at home and abroad.

One instance is the sudden take-over by a provincial government of a privately-owned public utility company; another is the reported use of a provincial law known as the "Undeveloped Mineral Areas Act" to squeeze out a mining company from title to, and occupancy of, a mineral property on the development of which it had spent very considerable sums of money.

Such experiences make one wonder whether our reputation for political stability is as fully warranted as we should like to believe.

But let us say that these are the exceptions to the rule. The fact remains that political stability is a very valuable asset.

So is stability of tax policy. Without it, all taxpayers, that is all of us, both in our individual and corporate capacities, are left in doubt, suspense and uncertainty, unable to embark on future planning and projects with any degree of assurance and confidence.

Surely there is ground for concern at the current overall level of taxation. In this respect the mining industry finds itself between the crossfires of federal and provincial authorities, faced with the prospect of further overall increases in the tax burden with no assurance of any easement in the foreseeable future.

What is urgently awaited is a decision and a determination on the part of governments to make a fresh co-operative effort to settle a problem which is of major importance for the economic well-being of this country.

As far as mining is concerned, we note many instances of fruitful co-operation between the authorities of the federal and the provincial governments, such as a joint programme of expanded aeromagnetic surveys, a "Roads to Resources" programme,

and so on; and in the educational field the production of a mining film as a joint venture between the provinces should prove a highly useful and constructive project.

It is certainly to be hoped that equally effective co-operation can be achieved in these other fields, such as tax policy, which ultimately determine the climate, economic and financial, in which industry must operate in this competitive world.

In general, there seems to be pretty universal agreement that a cloud has descended over our economic prospects which seemed so rosy a few years ago.

This is by no means entirely due to what other people have been doing to us; it is to no small degree due to what we have been doing to ourselves and what we have failed to do. There is an important difference here. For what others have done to us we are in no way responsible; we must simply adjust to the best of our ability.

For what we have done to ourselves, or have failed to do for ourselves, we are entirely responsible, and we have under our control the means of correction.

As to the means of correction let us be wise enough to profit by the experience of others.

Last fall a group of distinguished Canadian businessmen, including eight presidents, or senior officials, of our mining and metallurgical companies, went, under government auspices, on a Trade Mission to the six countries of the European Economic Community. They were deeply impressed by what they saw and heard. They noted within each of these countries and between the Six as a whole a degree of determined and planned co-operation between government, management and labour quite unlike anything known on the North American continent.

These experiences bore some fruit here, such as the establishment of the National Productivity Council and the Labour-Management Council. Both these bodies are still in the formative stage; perhaps it is too early to expect much by way of practical results. At least they represent a start, a recognition that a more enlightened and dynamic effort on the part of government, management and labour is urgently called for.

In such an effort who must take the lead and furnish the initiative?

Clearly, I believe, that is the proper role for government. A good beginning and example would be set if more obvious and direct steps were taken by governments in Canada to co-operate

not only on particular and specific projects but on those larger matters of policy to which reference has already been made.

There are one or two specific questions which are exercising members of the industry at this time and of which it may be appropriate to make mention on an occasion such as this.

One relates to steps taken in the interests of conservation to exclude exploration and mineral development from areas designated as parks or reserves. The issue is a live one at the present time and is attracting a good deal of attention also in the United States. We would urge that careful consideration be given to this matter. If such prohibitive regulations become too severe or too general the advantages gained in the cause of conservation might very well be more than offset by losses incurred through inability to develop mineral deposits of promise.

Another matter which seems to us to call for some careful reconsideration relates to the type of regulation recently incorporated in the revised mining regulations for the Northwest Territories.

I refer specifically to that section which requires that, as a condition of obtaining a production license, a company

must be incorporated in Canada, or beneficially owned to the extent of 51% by Canadian citizens, or listed on a recognized Canadian stock exchange.

Now for those not familiar with the mining industry this type of regulation may seem desirable as an attempt to ensure broad Canadian ownership in our natural resource industries.

But if legislation of this kind had been generally in effect ten years ago, the iron ore of New Quebec and Labrador, for example, would still be in the ground. Where in Canada is to be found risk and venture capital in amounts of 200 to 300 million dollars to make possible such gigantic projects? It is no doubt a desirable goal that Canadians should be able to participate if they so desire in the financial ownership of companies operating on Canadian natural resources. It would certainly be desirable to provide Canadian citizens with reasonable and continuing opportunity for such financial participation; and every encouragement might well be given to have them in fact so participate.

But that is a different matter from framing regulations which deter or discourage anyone else from putting their money into Canadian mineral developments.

We are not yet in this country at the point where we

can afford to scare off capital from outside. Any premature steps in the direction of financial "economic nationalism" could well retard the pace of progress in our mining developments.

This seems to us an important issue where ill-considered steps could quickly rebound to our disadvantage.

And no outbursts of journalistic sensationalism about "giving away our natural resources" should deter us from maintaining a sensible policy in this regard.

There are, of course, many other matters which will come under review at your conference.

I have tried to confine myself to questions which I know to be of some concern to members of the mining industry in the current circumstances.

I must thank you most sincerely for granting me the privilege of drawing these points and considerations to your attention, and trust that you will have a pleasant and fruitful conference.

COMMITTEE REPORTS, RECOMMENDATIONS

AND

DECISIONS OF MINISTERS

COMMITTEE NO. 1

Co-Chairman: Mr. F. Gover

Co-Chairman: Dr. P. E. Auger

PROBLEMS RELATING TO MINING OPERATIONS

Three subjects were presented to the meeting:

- (a) Use of Ammonium Nitrate as a blasting agent underground.
- (b) Silicosis.
- (c) Non-destructive testing of hoisting ropes.

After discussion by the members present, the Committee was pleased to report the following recommendations:

- (a) Use of Ammonium Nitrate as a blasting agent underground.

The Committee on Mining Operations recommends that a subcommittee consisting of the Chief Inspectors of Mines of the Provinces, together with the Chief Inspector of Explosives of Canada, meet to consider the use of ammonium nitrate and fuel oil mixtures (AN-FO) in blasting operations on mining properties.

Recommendation Adopted

- (b) Silicosis.

It was proposed by the members of Committee No. 1 that the work of the subcommittee be continued to study the

subject of silicosis as between Provinces, with Mr. Peck continuing as Chairman, and that, as in the request of a year ago, the various Workmen's Compensation Boards be asked to continue working with the subcommittee.

Recommendation Adopted

(c) Non-destructive testing of hoisting ropes.

A progress report was read by Mr. C. M. Barrett, of the Ontario Department of Mines, on the status of the investigation of electro-magnetic testing of mine hoisting ropes. The report advised that the Province of Ontario and the Ontario Mining Association are carrying on further investigation in this project.

Report Accepted

COMMITTEE NO. 2

Chairman: Mr. P. J. Mulcahy

PROBLEMS RELATING TO GEOLOGY, GEOPHYSICS
AND PROSPECTING

The committee met at 2:00 p.m. on September 18th, and at 9:00 a.m. and 2:00 p.m. on September 19th. During most of the sessions twenty to thirty people were present.

The committee considered the agenda as printed and also considered some items introduced from the floor during the meeting.

Representatives of industry indicated their concern over the affect on the financing of mineral exploration and development, of the implications contained in the recent Federal Regulations relating to Canadian participation. They also expressed their concern that the same tendency may develop provincially in the form of legislation that would call for provincial participation.

Changes made in legislation affecting prospecting and changes proposed for such legislation were discussed by representatives of the Provinces and of the Department of Northern Affairs and National Resources.

RECOMMENDATIONS

- (1) That review of changes in legislation affecting prospecting be included in the agenda for the next conference.

(11) Preservation of Exploration Data

The committee reaffirms that it considers the preservation of exploration data is of vital importance for economical development of Mineral Resources and recommends,

- (1) that Mines Departments and industry co-operate in the effort to preserve and make useful the data obtained in geological, geochemical, geophysical or other form of exploration, and that the Mines Departments provide the necessary facilities
- (2) that this committee review progress on this project at future meetings.

- (111) Whereas the mining fraternity is becoming increasingly concerned over policy that permits withdrawal of large tracts of land for recreational, park, or other purposes without due regard to the mineral potential.

And whereas it is felt that in the majority of cases

prospecting and mining could be carried out under proper supervision without detriment to the purpose for which the land was set aside.

"The Ministers recommend that having due regard to the interest and needs of mineral exploration and production, recreation, forest use and conservation and game preservation, the Federal Government establish a procedure to hear applications and to provide regulations for prospecting and mining within national parks, and other lands under Federal jurisdiction which have been withdrawn from general prospecting and staking."

Recommendation Accepted

(IV) The committee also submitted to the Ministers for consideration the thought that as a means of securing a measure of uniformity in survey requirements for formal acquisition of mineral rights at the stage of Patent, Lease, or Licence.

Those provinces that now require the surveys of the boundaries of all the individual claims in a group should study means by which requirements could be met by the survey of the perimeter of the group rather than survey of the boundaries of the individual claims.

It is recognized that the size of permissible groups may reasonably be expected to vary in different jurisdictions and that assessment credits for group perimeter surveys should be less than the sum of the credits for surveying each claim in the group.

An important advantage of the proposal is that the additional funds needed to complete the individual internal surveys could be spent more advantageously on actual exploration work.

COMMITTEE NO. 3

Chairman: Mr. J. T. Cawley

ROYALTIES, TAXATION and TARIFFS

Five subjects were presented to the meeting:

- (a) Possibility of obtaining uniformity in compilation of mineral statistics.
- (b) Definition of mines under the Federal income tax and regulations for customs and income tax purposes; with special reference to layered and bedded deposits.
- (c) Limitation placed on the amount of royalty tax paid to a province that can be claimed by a mine as an expense for income tax purposes.
- (d) What action can be taken by the Provinces, individually or jointly, to encourage a progressively higher level of processing, refining and manufacturing of our mineral products within Canada? Do we, as a nation, have any defined policy directed to this objective?

- (e) Uniformity of legislation and practice in determining the amount of profit to which the tax rates of the several provinces are applied in order to determine the royalty payable by each mine, exclusive of natural gas and oil wells.

After discussion by the members present the committee was pleased to report the following:

(a) Uniformity in Compilation of Mineral Statistics

It was reported that a statistical committee had met in Ottawa upon two occasions with the view to searching out and arriving at a uniform basis of reporting statistics having regard to the Federal and Provincial end use of such statistics. It was indicated that the committee had achieved considerable progress, and had become better informed upon the basis upon which statistics are presently kept both by the Provinces and the Federal Government.

The Sixteenth Annual Conference recommended "consideration be given by the Ministers to the development of uniform method of compilation and presentation of mineral statistics which would be acceptable to both the Federal and Provincial authorities".

RECOMMENDATIONS

- (1) It was the recommendation of the Chairman of the Committee that the Ministers recommend to Ottawa the sponsoring and continuation of such meetings by Federal and Provincial statisticians from time to time as the need appeared to arise but, in any event, at least once every two years.
- (2) It is recommended that the Federal Government be requested to set out for the next Conference the unresolved mineral statistical problems from the Federal Government's point of view having in mind that such problems will be brought forward for Provincial consideration, discussion and appropriate action at the next Mines Ministers Conference.

Recommendations Accepted

- (b) Definition of mines under the Federal Income Tax and regulations for customs and income tax purposes; with special reference to layered and bedded deposits.

The Committee discussed briefly the various aspects of the above question and concluded that the stand indicated at the

previous Conference should be reiterated in that there did not appear to be any tangible results from the previous representations to Ottawa.

RECOMMENDATION

It is recommended that the Mines Ministers make another representation to Ottawa reiterating the representations of last year's Conference and press for more immediate action, as follows:

We, the Committee on Royalties, Taxation and Tariffs, consider that certain industrial minerals are discriminated against in the Federal Income Tax Act, and because an adequate and low cost supply of these materials is indispensable to Canada's economic development, we recommend that this discrimination be removed, and to this end that the term "bedded deposit" be deleted from the Act where it refers to certain industrial mineral deposits.

Recommendation Accepted

- (c) Limitation placed on the amount of Royalty Tax paid to a Province that can be claimed by a mine as an expense for Income Tax purposes.
-

After discussion the Committee concluded that for Income Tax purposes Provincial Royalty Taxes should be allowed in their full amount. This is in particular reference to Section 701-1 (b) of the Income Tax Regulations.

RECOMMENDATION

It is recommended that the Mines Ministers again bring to the attention of appropriate Federal authorities the urgency of this question by presenting and restating the representations made by the Mines Ministers following the last Conference, as follows:

This Committee recommends that the Minister approach the Federal Income Tax authorities with the proposal that consideration be given to the repeal of section 701 (1)(b) of the regulations under the Income Tax Act in order that mining companies may be allowed to deduct, in computing income under the Income Tax Act, 100% of the mining tax paid to a province or to a municipality.

Recommendation Accepted

- (d) What action can be taken by the Provinces individually or jointly to encourage a progressively higher level of processing, refining and manufacturing of our mineral products within Canada? Do we as a nation have any defined policy directed to this objective?
-

This topic was given lively discussion upon the following lines:

- (i) Canada should not prohibit export of raw products.
- (ii) Creation of secondary industries based upon mineral products by creating incentives therefor but not at expense of export of raw materials.
- (iii) (a) Research into utility and economics of Canadian production having regard to domestic and foreign demand.

(b) Research for new uses and processes as applied to Canadian raw materials.
- (iv) Restraint on labour demands, particularly international unions, but not at expense of present standards of living.
- (v) Government incentives - both Federal and Provincial - for the effecting of a favourable Canadian attitude.

RECOMMENDATIONS

- (1) It is recommended that the Mines Ministers strike a committee to study and present a report to the next Convention having regard to:
 - (a) Present Provincial policies.
 - (b) How best to encourage and foster the processing of raw mineral materials in Canada without prejudice to export of minerals in present exportable form.
 - (c) Ways and means that Provinces may seek to expand markets with a view to increasing the processing of raw materials in Canada.
- (2) It is recommended that Mr. Mulcahy act as Chairman of the committee and that the committee be composed of a representative of each of the interested Provinces and a representative from each of the several mining associations. It is suggested that

the Federal Government be invited to participate in the work of the committee.

Recommendations Accepted

- (e) Uniformity of legislation and practice in determining the amount of profit to which the tax rates of the several Provinces are applied in order to determine the royalty payable by each mine, exclusive of natural gas and oil wells.

The committee discussed at length the various implications of this item including:

- (1) Desirable method of determining profit upon which royalties may be assessed.
- (2) Desirability of uniformity of approach to this problem as between Provinces.
- (3) Desirability of a Model Act.
- (4) Desirability of using the Federal Income Tax Act as a basis of calculation.
- (5) Advisability of defining and evaluating specific minerals.
- (6) Principle of severance and the true intent and purpose of royalty.

RECOMMENDATIONS

It is recommended that Ontario undertake to provide for the next Annual Conference:

- (1) Short digest of the present royalty basis in each Province.
- (2) Reasons for the differences in so far as may be reasonably possible to obtain by reference to each Province.

Recommendations Accepted

CONFERENCE RECOMMENDATION

It is recommended to the Mines Ministers that the present committee on Royalties-Taxation-Tariffs be maintained and reconvened at the next Annual Mines Ministers Conference.

Conference Recommendation Accepted

COMMITTEE NO. 4

Chairman: Dr. J. P. Nowlan

COAL

The Committee on Coal placed before the Provincial Ministers of Mines the following Resolutions:

NO. 1

WHEREAS, the Canadian Coal Industry is faced with increasingly severe competition from Industrial Fuel Oil imported into Canada as such or produced in Canada from imported Crude Oil;

AND WHEREAS, the impact of such competition has resulted in the curtailment of Coal Production in Canada and the closure of Canadian Collieries with resulting displacement of labour and deteriorating social conditions in the Coal-producing areas of Canada;

AND WHEREAS this condition will become increasingly worse in the future unless steps are taken now to lessen the competition Canadian Coal is meeting from imported Fuels in Canadian Markets;

BE IT THEREFORE RESOLVED that, to ensure the survival of the Canadian Coal Industry, the Provincial Ministers of Mines now assembled be requested to urge upon the Government of Canada the absolute necessity of granting subvention assistance to Canadian Coal to permit it to compete on an equal basis with imported Fuels in Canadian Markets.

NO. 2

WHEREAS the high quality bituminous coals of metallurgical grade now being produced in Western Canada are presently required for the reduction of ferrous and non-ferrous ores and will in the reasonably immediate future assume a much greater importance in the rapidly developing indigenous metal industry, and

WHEREAS the existing mines of British Columbia and Alberta have been reduced for the time being to minimum levels of production and it is desirable to maintain intact a nucleus of skilled mining personnel, engineering staff, "know-how" and physical plant against the day of such increased need, and

WHEREAS the Japanese export and other markets made possible by the existing subvention policy are the only markets presently available to accomplish this, and

WHEREAS in particular the elimination of export sales

to Japan would result in the closure of mines and consequent disaster to the employees and communities involved,

THEREFORE BE IT RESOLVED that the Canadian Coal Industry request the Provincial Ministers of Mines, here assembled, to urge the Government of Canada to provide such subvention assistance as will ensure the continuance of the export of coal from Western Canada to Japan.

NO. 3

BE IT RESOLVED FURTHER that the Canadian Coal Industry, in gratefully acknowledging assistance rendered to the Industry in the past by the Government of Canada, requests the Provincial Ministers of Mines to transmit to the Government of Canada its sincere appreciation of that assistance and also, further requests in addition to the aid asked for in the foregoing Resolutions, such other assistance as from time to time may be deemed necessary to maintain present markets and to extend them wherever it be possible to do so;

AND STILL FURTHER BE IT RESOLVED that copies of this Resolution be forwarded by the Ministers to:

The Right Honourable John G. Diefenbaker,

Prime Minister of Canada.

The Honourable Paul Comtois,

Minister of Mines.

The Honourable George C. Nowlan,

Minister of National Revenue.

Resolutions Accepted

COMMITTEE NO. 5

Co-Chairman: Mr. J. G. Cowan Co-Chairman: Mr. H. H. Somerville

PETROLEUM AND NATURAL GAS

The Committee held meetings on May 26, 1961 and on September 18th and 19th and its subcommittees and their working committees also met during the year.

The Model Oil and Gas Unit Agreement submitted by the Lands Subcommittee was approved. Considerable work was done on the draft of a Model Underground Gas Storage Act but further work and study are essential before the Model is completed.

The Lands Subcommittee proposes during the ensuing year to undertake the following projects:

- (a) Further study and consideration of the Model Underground Gas Storage Act,
- (b) A study as to the ownership of casing in abandoned wells in lands where the title to the surface and the title to the minerals are held by different persons,
- (c) A draft of a Model Oil and Gas Unit Operating Agreement, and
- (d) A draft of a Model Oil and Gas Unit Operations Act.

The following reports submitted by the Technical Subcommittee were approved:

- (a) Retention of Records by Industry on Oil and Gas Operations,
- (b) Equity in Oil and Gas Properties, and
- (c) Uniform Nomenclature of Petroleum Products for Use in Statistical Reporting.

During the ensuing year the Technical Subcommittee intends to undertake the following:

- (a) Report on the projection of markets for natural gas,
- (b) A study of the forecast of requirements respecting demand and supply of crude oil and products,
- (c) Revision of Model Regulations for Drilling and Production Operations as presented in the Regulatory Practices Subcommittee Report of April 30, 1956 to up-date them in the light of recent practices.

RECOMMENDATIONS

The Committee adopted the following recommendations which are respectfully submitted to the Mines Ministers for

approval:

1. That the reports and model unit agreement approved by the Committee be distributed to Government and Industry representatives.
2. That the Petroleum and Natural Gas Committee be continued as a standing committee.

Recommendations Accepted

COMMITTEE NO. 6

Chairman: Mr. K. B. Brown

Secretary: Mr. L. C. Brown

EDUCATION

The committee received a progress report on the production of the film "The Nation Builders" and is satisfied that production is proceeding satisfactorily. The first English prints are expected to be available by the end of the year. French language prints will be ready about a month later. It is understood that Professor H. R. Rice will act in an advisory capacity to the producer in the final editing of the film from the educational point of view.

The committee recognized the need of having available for use and distribution a catalogue of films of mining interest, listing films of an acceptable standard of technical and educational value, and was informed that the Canadian Institute of Mining and Metallurgy is also interested in the preparation of such a catalogue. It therefore recommends that the secretary be delegated to co-operate with the CIM in this project. The cost will be nominal as the catalogue will be available as reprints from the CIM Bulletin.

The committee also recognizes the need of having popular educational literature dealing with the mineral industry

available for distribution and recommends:

1. That the Departments of Mines exchange lists and sample copies of publications available for distribution and that a collection of such literature be placed on exhibit at the 1962 meeting.
2. That advantage be taken of the availability of extra prints of an article on careers in the mineral industry, expected to be published in an early issue of the CIM Bulletin, and that orders for extra prints be placed through the Secretary of this committee.
3. That the project initiated several years ago for the preparation of a series of pamphlets on careers in the mineral industry be revived, and that arrangements be made for their publication. The secretary of the committee will collect available manuscripts and report progress on this project in 1962.

Because of the necessity for continuity of effort in education, the committee recommends that it be constituted as a continuing committee with a member appointed from each

Province of whom one will act as secretary between meetings.
Such a continuing committee will co-operate with the education
committee of the CIM in projects of common interest.

Recommendations Approved

APPENDIX A

THE USE OF AMMONIUM NITRATE AND FUEL OIL MIXTURES
(AN-FO) IN BLASTING OPERATIONS UNDERGROUND

Presented by

W. E. Bawden

Chief Engineer of Mines,
Department of Mines,
Ontario.

Eighteenth Annual Conference
of the
Provincial Ministers of Mines

Toronto, Ontario
September 17 - 20, 1961.

THE USE OF AMMONIUM NITRATE AND FUEL OIL MIXTURES
(AN-FO) IN BLASTING OPERATIONS UNDERGROUND

The purpose of this paper is to present sufficient information on the use of this material to date underground in Ontario mines to make a basis for discussion of any legislation which may be necessary for adequate control. The use of AN-FO underground while still more or less experimental has shown that it can be used safely and effectively and in most cases at a considerable reduction in costs compared with nitro-glycerine explosives. The use is spreading rapidly, consequently, to many of our mines.

Examples of Use

- I. The International Nickel Company of Canada, Limited,
Sudbury, Ontario.

This company, as well as others, has furnished us with a report on their use of the AN-FO mixtures to the present. Innovations in the use are constantly being made so that a method of yesterday may not be that of today.

Prior to any extensive testing directed at developing the use of AN-FO blasting agents for use in underground operations,

a joint investigation was carried out by C-I-L and INCO personnel to determine the fume properties of this material. By December 1960, sufficient data had been collected for this purpose and there was general agreement that the fume characteristics of AN-FO compared favourably with Class 1 explosives. Colourimetric tests were found to be reliable for measuring CO concentrations but NO₂ determinations had to be made through laboratory tests.

An intensive research program then followed to investigate these points:

1. Safe and efficient methods of storing and handling Fertilizer Grade Ammonium Nitrate (FGAN) and AN-FO mixtures.
2. The available types of prilled ammonium nitrate.
3. Methods of blending the prills with oil to provide the proper mixtures.
4. The equipment available for placing AN-FO in drill holes and its general suitability as an underground blasting agent.

All available literature on the subject was obtained

for thorough study. The actual testing program has been gradually expanded to now include the use of AN-FO for blasting of longholes at any depth and angle, for undercut-and-fill, square set and cut-and-fill mining, for development blasting in drifts and raises and secondary blasting in slusher trenches. The blasting agent also makes up about 67% of the total explosives charge for our open pit production. In all cases the various products under investigation were tested for cap sensitivity and fume testing continued for numerous underground blasts.

General Usage of AN-FO Underground

Following the completion of numerous test blasts, the decision was made to use the blasting agent on a production basis at Creighton No. 3 shaft. AN-FO mixtures were used in as many applications as possible and in June of 1961 the average daily consumption at this location was 13,600 lbs. The distribution of AN-FO on a daily basis was approximately 12,300 lbs. for secondary blasting, 1,000 lbs. for primary blasting in longholes and 300 lbs. for development rounds in drifts, raises and box-holes. About 1,000 lbs. per day of regular explosive was used for priming and for loading of holes in certain wet areas where the blasting agent was not applicable.

Future Development of AN-FO Program

Based on the successful use of the material at Creighton during the month of June, it has now been decided to introduce use of this product to the other mines. During the month of July, the training of personnel in the use of the blasting agent will be carried out at Frood-Stobie, Murray, Levack and Garson Mines. While a very limited amount of test blasting has previously been carried out at the Frood-Stobie, Garson and Levack Mines, no attempt has been made to introduce the usage of blasting agents to the miners. At present, the matter of storage for ammonium nitrate and possible mixing arrangements are being investigated at these properties.

Other investigations now under consideration include:

- (1) Preparation of the blasting agent - this matter is being deferred pending receipt of a proposal by a supplier for possible establishment of central mixing and delivery facilities in this area.
- (2) Improved type of eductor for loading of blasting agents in small diameter holes.
- (3) Loading of blasting agents in wet holes.

- (4) Continued investigation of fumes developed in AN-FO
blasts - types of detectors available, etc.

II. Stanrock Uranium Mines, Limited,
Elliot Lake, Ontario.

This company is now using AN-FO in practically all its blasting operations underground. A paper, with which you are familiar, on its use was presented at the Annual Meeting of the Canadian Institute of Mining & Metallurgy this year. At that time, a factory-mixed AN-FO was being used. Recently, the company has been experimenting with mixing the material at the mine.

The experience of this operator in connection with blasting fumes has been that as at INCO the fume characteristics compare favourably with Class 1 Explosives.

III. Rio Algom Mines Limited - Milliken Division,
Elliot Lake, Ontario.

Considerable experimental use of AN-FO has been made underground at this property with its use expanding. Mining is by the room and pillar method.

IV. Denison Mines, Limited,
Elliot Lake, Ontario.

Successful experimental use of AN-FO has been carried on at this operation. Mining is by the room and pillar method.

V. Canadian Gypsum Company, Limited,
Hagersville, Ontario.

This company is mining a four foot thick flat lying body of gypsum by the room and pillar method at the rate of approximately 800 tons daily. AN-FO mixtures are used entirely for blasting with satisfactory results.

VI. A number of other mines are carrying on early experiments with the use of AN-FO.

AN-FO Mixtures Used

Many types of Ammonium Nitrate are available and it is not the purpose of this paper to attempt a differentiation. Some mixtures are more sensitive than others and it is necessary for the operator to find the most suitable type for his operation as has been the case with the N.G. explosives. A proper mixture of the two ingredients is important to obtain the proper oxygen balance both for effectiveness and the characteristics of the blasting fumes.

The Ontario Department of Mines has asked all operators to use a factory-mixed material at least in the early stages of experimental use at their properties so that there is no question of improper proportions. The suppliers of explosives supply a variety of mixes and have rendered much technical assistance in their use.

Two mining companies in Ontario have experimented with the mixing of ammonium nitrate at their properties. This actually constitutes the manufacture of explosives which again requires the approval of the Chief Inspector of Explosives at Ottawa under the Explosives Act of Canada.

The blending of ammonium nitrate and fuel oil has been done very simply in large holes at quarry and open pit operations for some years by pouring the two in the hole at the same time. This, however, cannot apply obviously to underground work. A method which has produced satisfactory results to date is the injection method of inserting a perforated tube or number of tubes into the bag of ammonium nitrate and injecting a metred quantity of oil. A dye added to the oil has shown visually the degree of distribution.

Any such mixing of the ingredients of AN-FO at a property must be carefully controlled and may not be desirable or allowable at small operations.

Blasting Fumes

Since the beginning of the experiments with AN-FO, operators have all made many tests of the after blasting fumes, particularly for nitrogen dioxide. These tests have been both by indicator and laboratory analysis. Unfortunately, to date we have not found an indicator which will check reliably with laboratory analysis for this gas.

As previously stated, the results of the analysis have shown a favourable comparison of these gases with those produced by N.G. explosives.

As with all blasting fumes, the main requirement is adequate and effective mine ventilation for their removal. Water sprays are reported to be of considerable assistance in quickly reducing the nitrogen dioxide.

Rules Governing the Storage, Handling and Use of AN-FO

Each province has developed and legislated rules governing the storage, handling and use of explosives at mining properties. These rules or laws have been developed to govern these items in connection with fuse detonators and the powders used. In recent years, with ammonium nitrate without nitro-glycerine or TNT the storage rules have been relaxed for relative distances.

A paper on the Storage of Ammonium Nitrate was presented to this committee a few years ago by Mr. Maurice Lafontaine of the Quebec Department of Mines. Recommendations are also made in (a) Circular #7988, U.S. Bureau of Mines, (b) National Research Council, FGAN, Warehouse Storage and (c) National Fire Protection Association Code for Handling Explosive and Blasting Agents.

We understand that by itself ammonium nitrate in bulk, or as the AN-FO mixture, approximately 95 - 5 percent is not particularly inflammable but under any pressure which may develop by confinement this condition is changed. Storages should allow for this.

In the use of AN-FO by blowing into blast holes, frequently static electricity is developed, sometimes to an alarming extent. In the bottom priming of drill holes with electric detonation there may be a hazard. A fatality occurred in a mine in the southern United States which may have been caused by this practice. Collar priming with electric primers does not raise this hazard although some operators ground the injecting apparatus even to a rock-bolt. In Ontario to date the practice of bottom priming with electric detonation has not been used. At the Detroit mine of the International Salt Company Ltd., bottom priming is used with electric detonation and strangely

there appears to be little or no static developed.

A feature pleasing to miners handling large amounts of explosive is there is no "headache" since there is no N.G.

There should be no hazard in cleaning bootlegs of holes loaded with AN-FO and no detonator present.

Conclusions

We believe it is desirable to define AN-FO as a blasting agent so that there is no interference with the laws governing the use of materials containing nitro-glycerine or TNT. The definition may be as follows:-

"blasting agent" means a type of explosive consisting substantially of inorganic nitrates and carbonaceous materials, in which no single ingredient is an explosive, and which cannot be detonated by a number eight detonator as mixed and packaged for use, and unless specified the requirements for explosives shall not apply to 'blasting agent'".

This should be clarified also in the Explosives Act of Canada.

If this definition is accepted, it may also assist in the clarification of term "manufacture" as applied to AN-FO mixtures.

The Ontario Department of Mines wishes to record its appreciation of the understanding and assistance in this development by the Chief Inspector of Explosives, Department of Mines and Technical Surveys, Ottawa, and the mine operators of Ontario who in this experimental work have given every co-operation to the Department in furnishing records of their tests.

THE LATE JAMES A. MALONEY

The chairman of the Eighteenth Conference of Mines Ministers, the Honourable James A. Maloney, Minister of Ontario, was prevented by illness from participating in any of the activities of the Conference. Only a few weeks later, his friends and colleagues throughout Canada were shocked to learn of Mr. Maloney's death on October 31st, 1961.

Mr. Maloney, a native of Eganville in Renfrew County, Ontario, was elected to the Ontario Legislature in a by-election held in 1956. He represented the constituency of Renfrew South. He was appointed to the Cabinet as Minister of Mines December 22nd, 1958, and in that portfolio he exerted great influence on the mining industry of the province.

APPENDIX B

PRESENTATION TO

THE RIGHT HONOURABLE JOHN G. DIEFENBAKER

Prime Minister of Canada

THE HONOURABLE WALTER DINSDALE

Acting Minister of Mines and Technical Surveys

THE HONOURABLE GEORGE C. NOWLAN

Minister of National Revenue

and

THE HONOURABLE MEMBERS OF THE FEDERAL CABINET

With Respect to

CERTAIN RECOMMENDATIONS OF THE

EIGHTEENTH ANNUAL CONFERENCE

OF THE PROVINCIAL MINISTERS OF MINES

November 6, 1961.

INTRODUCTION

We first wish to express the appreciation and gratitude of the Provincial Ministers of Mines for this opportunity to meet with you to present certain resolutions and requests.

The Eighteenth Annual Conference of the Provincial Ministers of Mines held from September 17 to 20, 1961, at Toronto, Ontario, discussed various problems of mutual interest to the provinces, relating to mineral exploration and the mining industry. Resulting from these discussions the following recommendations which require your attention were adopted by the Conference, and these we respectfully submit to you.

PROBLEMS RELATING TO GEOLOGY, GEOPHYSICS AND PROSPECTING

1. "WHEREAS the mining fraternity is becoming increasingly concerned over policy that permits withdrawal of large tracts of land for recreationsl, park, or other purposes without due regard to the mineral potential.

"AND WHEREAS it is felt that in the majority of cases prospecting and mining could be carried out under proper supervision without detriment to the purpose for which the land was set aside.

"The Ministers recommend that having due regard to the interest and needs of mineral exploration and production, recreation, forest use and conservation and game preservation, the Federal Government establish a procedure to hear applications and to provide regulations for prospecting and mining within national parks, and other lands under Federal jurisdiction which have been withdrawn from general prospecting and staking."

ROYALTIES - TAXATION - TARIFFS

2. The Sixteenth Annual Conference recommended consideration be given by the Ministers to the development of uniform method of compilation and presentation of mineral statistics which would be acceptable to both the Federal and Provincial authorities.

A statistical committee met in Ottawa on two occasions with the view to searching out and arriving at a uniform basis of reporting statistics, having regard to the Federal and Provincial end use of such statistics, and it was reported at this Eighteenth Conference that the committee had achieved considerable progress and had become better informed upon the basis upon which statistics are presently kept both by the Provinces and the Federal Government.

- (a) "The Ministers recommend to the Federal Government the sponsoring and continuation of such meetings by Federal and Provincial statisticians from time to time as the need appears to arise but, in any event, at least once every two years.
- (b) "The Ministers request the Federal Government to set out for the next Conference the unresolved mineral statistical problems from the Federal Government's point of view, having in mind that such problems will be brought forward for Provincial consideration, discussion and appropriate action at the next Mines Ministers Conference."

3. The definition of mines under the Federal Income Tax Act and regulations for customs and income tax purposes, with special reference to layered and bedded deposits, was again discussed and the same conclusions were reached as were presented to the Federal Government by last year's Conference.

The Ministers again request immediate action on that recommendation which read

"We, the Committee on Royalties, Taxation and Tariffs, consider that certain industrial minerals are discriminated against in the Federal Income Tax Act, and because an adequate and low cost supply of these

materials is indispensable to Canada's economic development, we recommend that this discrimination be removed, and to this end that the term 'bedded deposit' be deleted from the Act where it refers to certain industrial mineral deposits."

4. The question of the limitation placed on the amount of Mining Tax paid to a Province that can be claimed by a mine as an expense for Income Tax purposes was discussed and it was agreed that for Income Tax purposes Provincial Mining Taxes should be allowed in their full amount. The urgency of this question was stressed and the Ministers now restate the representations made to the Federal Government by last year's Conference as follows:

"This Committee recommends that the Ministers approach the Federal Income Tax authorities with the proposal that consideration be given to the repeal of section 701 (1) (b) of the regulations under the Income Tax Act in order that mining companies may be allowed to deduct, in computing income under the Income Tax Act, 100% of the mining tax paid to a province or to a municipality."

5. Discussion as to what action can be taken by the Provinces individually or jointly to encourage a progressively

higher level of processing, refining and manufacturing of our mineral products within Canada, and the question of whether we as a nation have any defined policy directed to this objective, resulted in the recommendation that the Mines Ministers strike a committee to study and present a report to the next Conference having regard to:

- (a) Present Provincial policies.
- (b) How best to encourage and foster the processing of raw mineral materials in Canada without prejudice to export of minerals in present exportable form.
- (c) Ways and means that Provinces may seek to expand markets with a view to increasing the processing of raw materials in Canada.

The recommendation was made that Mr. P. J. Mulcahy act as Convenor of the committee and that the committee be composed of a representative of each of the interested Provinces and a representative from each of the several mining associations. It was suggested that the Federal Government be invited to participate in the work of the committee.

"The Mines Ministers support these recommendations and invite the Federal Government to submit suggestions and information for study by the committee as well as representatives to be appointed to the committee."

COAL

Dealing with the coal industry, the following resolutions were passed at the Conference and because of the extreme urgency in this matter, copies were forwarded to the Right Honourable John G. Diefenbaker, the Honourable Paul Comtois and the Honourable George Nowlan, on September 25, 1961, for study in advance of the submission of this brief:

6. "WHEREAS, the Canadian Coal Industry is faced with increasingly severe competition from Industrial Fuel Oil imported into Canada as such or produced in Canada from imported Crude Oil;

"AND WHEREAS, the impact of such competition has resulted in the curtailment of Coal Production in Canada and the closure of Canadian Collieries with resulting displacement of labour and deteriorating social conditions in the Coal-producing areas of Canada;

"AND WHEREAS this condition will become increasingly worse in the future unless steps are taken now to lessen the competition Canadian Coal is meeting from imported Fuels in Canadian Markets;

"BE IT THEREFORE RESOLVED that, to ensure the survival of the Canadian Coal Industry, the Provincial Ministers of Mines now assembled be requested to urge upon the Government of Canada the absolute necessity of granting subvention assistance to Canadian Coal to permit it to compete on an equal basis with imported Fuels in Canadian Markets."

7. "WHEREAS the high quality bituminous coals of metallurgical grade now being produced in Western Canada are presently required for the reduction of ferrous and non-ferrous ores and will in the reasonably immediate future assume a much greater importance in the rapidly developing indigenous metal industry, and

"WHEREAS the existing mines of British Columbia and Alberta have been reduced for the time being to minimum levels of production and it is desirable to maintain intact a nucleus of skilled mining personnel, engineering staff, 'know-how' and physical plant against the day of such increased need, and

"WHEREAS the Japanese export and other markets made possible by the existing subvention policy are the only markets presently available to accomplish this, and

"WHEREAS in particular the elimination of export sales to Japan would result in the closure of mines and consequent disaster to the employees and communities involved,

"THEREFORE BE IT RESOLVED that the Canadian Coal Industry request the Provincial Ministers of Mines, here assembled, to urge the Government of Canada to provide such subvention assistance as will ensure the continuance of the export of coal from Western Canada to Japan."

8. "BE IT RESOLVED FURTHER that the Canadian Coal Industry, in gratefully acknowledging assistance rendered to the Industry in the past by the Government of Canada, requests the Provincial Ministers of Mines to transmit to the Government of Canada its sincere appreciation of that assistance and also, further requests in addition to the aid asked for in the foregoing Resolutions, such other assistance as

from time to time may be deemed necessary to maintain present markets and to extend them wherever it be possible to do so."

All of which is respectfully submitted on behalf of the Provincial Ministers of Mines of Canada.

Ernest C. Manning,
Acting Chairman,
18th Annual Conference of
Provincial Ministers of Mines.

November 6, 1961.

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